USGS

WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003VI11B

Title: Coral Bay Watershed: Development of Management Measures for Sediment and Pollution Reduction - Phase II

Project Type: Education

Focus Categories: Water Quality, Conservation, Non Point Pollution

Keywords: Watershed Management, Stormwater Management

Start Date: 6/01/2003

End Date: 2/28/2004

Federal Funds Requested: $38014.00

Matching Funds: $0.00

Congressional District: N/A

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Abstract: Non-point source pollution of water resources resulting from runoff contamination, sediment deposition and the health hazards caused by dumping of unregulated human waste is a common problem in the Virgin Islands and in most small, mountainous, tropical islands throughout the Caribbean and Pacific regions. The Coral Bay watershed, St. John, USVI, with the highest population growth rate in the Virgin Islands, is typical of many watersheds throughout the Virgin Islands and the Caribbean, having a large watershed to bay area ratio. Many miles of unpaved roads and inappropriate land uses contribute to which cause runoff and sedimentation, leading to poor water quality and deterioration of marine resources in waters extending well offshore in the benthic zone. The Coral Bay watershed, St. John, USVI, with the highest population growth rate in the Virgin Islands, is typical of many watersheds throughout the Virgin Islands and the Caribbean, having a large watershed to bay area ratio. Many miles of unpaved roads and inappropriate land uses contribute to which cause runoff and sedimentation, leading to poor water quality and deterioration of marine resources in waters extending well offshore in the benthic zone. A Phase I study within this watershed and the surrounding marine waters, funded by the Non-Point Source Pollution Program at the Department of Planning and Natural Resources, has investigated sediment deposition rate, sediment deposition history and the impact on water quality,

fisheries diversity and coral reef health. The proposed study will complete Phase II of this project by developing and demonstrating a management procedure applicable to many small, mountainous tropical islands trying to preserve the natural environment. Utilizing the results of the previous work and current watershed management practices, we will organize and educate the watershed residents, develop a Watershed Atlas and informational brochure, collect additional years data on stormwater quality and coral reef health assessment and develop engineered plans for a long term, innovative stormwater management and best use plan for the growing watershed population and land use. The primary objective is to use the previously collected data to educate and organize the critical audience of residents, businesses and visitors to non-point source issues affecting water quality in their watershed and to assist them in organizing a Watershed Residents Association with a primary objective of educating and encouraging the larger general population and visitors to use best management practices for water resource protection. The methodology of a watershed focus, where residents have a common identifiable interest in quality of life, has a high impact and transferability within small watershed communities typical of many Caribbean and Pacific locations.
